

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

To:

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ALLEMAGNE

Date of mailing (day/month/year) 28 April 2005 (28.04.2005)	Ticona GmbH/Patente		IMPORTANT NOTIFICATION International filing date (day/month/year) 06 September 2003 (06.09.2003)
Applicant's or agent's file reference 2002/G016	Vorg.	Eing.: 02. MAI 2005	
International application No. PCT/EP2003/009907	<input type="radio"/> MW <input type="radio"/> ablegen <input type="radio"/> Vert. wie Vorg./ausgegeben		
Applicant	MD TICONA GMBH et al		

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, CO, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

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Translation

PATENT COOPERATION TREATY

PCT/EP2003/009907



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002/G016	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/009907	International filing date (day/month/year) 06 September 2003 (06.09.2003)	Priority date (day/month/year) 10 September 2002 (10.09.2002)
International Patent Classification (IPC) or national classification and IPC C08L 59/00		
Applicant TICONA GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>3</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 07 April 2004 (07.04.2004)	Date of completion of this report 09 December 2004 (09.12.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/009907

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-15, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages 1-20, filed with the letter of 09 September 2004 (09.09.2004)
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/09907

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

...6...

On page 9, lines 3 to 7 of the original disclosure, the percentage of spherical cells was related to the number of cells. This reference is missing in the new claim 1.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations

Cited documents

D1: GB-A-1 104 467 (CELANESE CORP) 28 February 1968
(1968-02-28)

D2: EP-A-0 308 835 (ICI AMERICA INC) 29 March 1989
(1989-03-29)

D3: DATABASE WPI Section Ch, Week 199524 Derwent
Publications Ltd., London, GB; Class A32,
AN 1995-182492 XP002269746 & JP 07 100858 A
(ASAHI KASEI KOGYO KK), 18 April 1995
(1995-04-18)

D4: DATABASE WPI Section Ch, Week 200248 Derwent
Publications Ltd., London, GB; Class A25,
AN 2002-448180 XP002269747 & JP 2002 096348 A
(ASAHI KASEI KOGYO KK), 2 April 2002
(2002-04-02)

D5: PATENT ABSTRACTS OF JAPAN, Vol. 2002, No. 08,
5 August 2002 (2002-08-05) & JP 2002 106683 A
(ASAHI KASEI CORP), 10 April 2002 (2002-04-10)

D6: SHIEH, YEONG-TARNG, ET AL.: "Interaction of
Supercritical Carbon Dioxide with Polymers. I.
Crystalline Polymers" JOURNAL OF APPLIED POLYMER
SCIENCE, Vol. 59, No. 4, 1996, pages 695-705,
XP002269745

D7: EP-A-1 008 637 (NITTO DENKO CORP) 14 June 2000
(2000-06-14)

Novelty (PCT Article 33(2))

D1 (example 4) discloses a cellular oxymethylene copolymer with a cell size of 25 to 2500 micrometers (0.0001 to 0.1 inch) and a thickness of 0.3 to 1.35 g/ml. The cellular product is produced by adding nitrogen to the copolymer at 200°C and 7.14 bar (100 pounds per square inch), the melt thus obtained then being transferred to a mould. The articles produced are used as sound insulating material (page 3, lines 67 and 68).

Porous polyacetals that also include a metal are known from D2 (page 3, lines 23 and 41 and page 4, lines 20 and 21).

D3 discloses a moulded part that consists of foamed polyacetal and is of varying thickness. The moulded part is used in automobiles. The moulded body is produced by adding nitrogen at 120°C and under a pressure of 30 kgf/cm².

D4 and D5 disclose moulded parts that are made of foamed polyacetal and are used in the automobile industry. The parts are produced by dissolving carbon dioxide in the polyacetal, filling a mould with the mixture thus obtained and foaming the mixture thus produced.

None of the above documents discloses a difference in the thickness of the foamed moulded body of at least 1 mm. The subject matter of all the claims is

thus novel over D1 to D5.

D6 discloses treatment of, *inter alia*, polyoxymethylene with supercritical carbon dioxide. D6 does not, however, disclose the production of foamed polyoxymethylene or the claimed difference in thickness.

D7 discloses adhesives foamed with supercritical carbon dioxide. D7 does not disclose foamed polyacetals or the claimed difference in thickness.

The subject matter of all the claims is thus novel over D6 and D7.

For the sake of procedure, it is pointed out that the claimed method steps are at least already disclosed in D1 (example 4) and D6 (page 697, paragraph entitled "Supercritical Carbon Dioxide Treatment and Testing Procedures"). The products obtained using the methods described in those documents must therefore have the claimed cell morphology. Consequently, that morphology cannot be considered a distinguishing feature.

Inventive step (PCT Article 33(3))

As stated above, the only difference between the subject matter of the application and the disclosures of D1 to D5 is that the claimed moulded part has variations in wall thickness of at least 1 mm.

Any advantages over the cited prior art indicated by the applicant or specified in the application can be

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used to support an inventive step only if:

- (i) they are supported by experimental evidence;
and
- (ii) the evidence shows that the advantage is a
result of the distinguishing feature.

In the present case, there is nothing to prove that such an advantage over D1 to D5 is surprisingly achieved as a result of the difference in wall thickness. Conditions (i) and (ii) above are therefore not satisfied. Consequently, the subject matter of all the claims lacks inventive step in relation to each of documents D1 to D5.